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PENNSYLVANIA DEPARTMENT OF AGRICULTURE
BUREAU OF PLANT INDUSTRY
HARRISBURG

TOMATO LEAF SPOT

One of the most troublesome diseases of tomato is leaf spot or blight. As the first name indicates the outstanding symptom is the occurrence of numerous small spots on the leaves, brought about by a parasitic fungus (*Septoria lycopersici*). Each small spot on the foliage represents an individual colony of this fungus, started from a single spore. When the spots are numerous the leaf is greatly weakened; if the leaf is old or sluggish it readily turns yellow and falls off, but when younger, more vigorous leaves are attacked they are likely to turn brown and gradually shrivel up. The damage from the disease comes largely from a reduction of leaf surface which means a lessening of the power of the plant to produce food for building up and maturing its fruit.

Control

The fungus spreads rapidly from spores produced in the spots. These have a tendency to be spread when wet so that cultivation or handling when the plants are wet with dew or rain should be avoided. The fungus lives over winter on the old leaves and plant parts so care in burning all tomato plant refuse in the fall is recommended. For the same reason it is advisable to grow tomatoes in a new part of the garden or field each year.

Bordeaux soap mixture, 4-4-3-50 (standard Bordeaux with 3 lbs. resin-fish oil added) will give good control of leaf spot if spraying is started before the disease is well established. About three or four applications at intervals of two weeks or ten days beginning when the plants are a foot high will in most cases give excellent control. In the colder parts of the state where the season is short only one or two applications may be necessary, while the longer season in the southern warmer sections may require six or seven. Copper-lime dust may be substituted for Bordeaux when spraying cannot be used.

The use of Bordeaux is said to delay the fruiting period by encouraging longer early vegetative growth. Where the season is very short or where the earliness of the crop is a first consideration spraying might thus bring some disadvantage; but under both conditions mentioned leaf-spot is not usually as damaging as for the late crop with its long growing season.

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